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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/724,538	11/28/2000	Daniel D. Shoemaker	9301-123	7044
20583	7590	03/30/2009		
JONES DAY 222 EAST 41ST ST NEW YORK, NY 10017			EXAMINER LU, FRANK WEI MIN	
			ART UNIT 1634	PAPER NUMBER
			MAIL DATE 03/30/2009	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	09/724,538	SHOEMAKER ET AL.	
	Examiner	Art Unit	
	Frank W Lu	1634	

- The MAILING DATE of this communication appears on the cover sheet with the correspondence address -

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.138(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 December 2007.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,7-9,14-29,31-34,36,45,46,86-90,212,213,263-267 and 280-296 is/are pending in the application.
- 4a) Of the above claim(s) 46,88,212,213,266 and 267 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,7-9,14-29,31-34,36,45,86,87,89,90,263-265 and 280-296 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 01 April 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 12/2007.
- 4) ☒ Interview Summary (PTO-413) Paper No(s). 11/2007.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

### **DETAILED ACTION**

#### ***CONTINUED EXAMINATION UNDER 37 CFR 1.114 AFTER FINAL REJECTION***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission of RCE and the amendment filed on December 10, 2007 have been entered. The claims pending in this application are claims 1, 7-9, 14-29, 31-34, 36, 45, 46, 86-90, 212, 213, 263-267, and 280-296 wherein claims 46, 88, 212, 213, 266, and 267 have been withdrawn due to species election mailed on June 24, 2002. Rejection and/or objection not reiterated from the previous office action are hereby withdrawn in view of the response filed on December 10, 2007. Claims 1, 7-9, 14-29, 31-34, 36, 45, 86, 87, 89, 90, 263-265, and 280-296 will be examined.

#### ***Claim Objections***

2. Claim 293 or 294 or 295 or 296 is objected to because of the following informality: "an exon" should be "said exon".

Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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4. New Matter

Claim 29 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The recitation "said linker sequence is adjacent to said support" is added to the newly amended dependent claim 29. Although page 38, lines 1-4 of the specification suggested by applicant describes "a linker sequence refers to a sequence between the sequence that is complementary to its target sequence and the surface of support", the specification fails to define or provide any disclosure to support such claim recitation because a sequence between the sequence that is complementary to its target sequence and the surface of support can not be adjacent to said support.

MPEP 2163.06 notes "If NEW MATTER IS ADDED TO THE CLAIMS, THE EXAMINER SHOULD REJECT THE CLAIMS UNDER 35 U.S.C. 112, FIRST PARAGRAPH - WRITTEN DESCRIPTION REQUIREMENT. *IN RE RASMUSSEN*, 650 F.2d 1212, 211 USPQ 323 (CCPA 1981)." MPEP 2163.02 teaches that "Whenever the issue arises, the fundamental factual inquiry is whether a claim defines an invention that is clearly conveyed to those skilled in the art at the time the application was filed...If a claim is amended to include subject matter, limitations, or terminology not present in the application as filed, involving a departure from, addition to, or deletion from the disclosure of the application as filed, the examiner should conclude that the claimed subject matter is not described in that application." MPEP 2163.06 further notes "WHEN AN AMENDMENT IS FILED IN REPLY TO AN OBJECTION OR REJECTION BASED ON 35 U.S.C. 112, FIRST PARAGRAPH, A STUDY OF THE ENTIRE APPLICATION IS OFTEN NECESSARY TO DETERMINE WHETHER OR NOT "NEW MATTER" IS INVOLVED. *APPLICANT SHOULD THEREFORE SPECIFICALLY POINT OUT THE SUPPORT FOR ANY AMENDMENTS MADE TO THE DISCLOSURE*" (emphasis added).

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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6. Claims 1, 7-9, 14-29, 31-34, 36, 45, 86, 87, 89, 90, 263-265, and 280-296 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Claim 1 is rejected as vague and indefinite in view of step (b). Since step (b) does not require measuring levels of hybridization between probes that specifically hybridize to different variants of an exon of a gene and said RNAs or nucleic acids, and only requires measuring levels of hybridization between said probes and said RNAs or nucleic acids, said levels of hybridization can not indicate the nucleic acid expression levels of said plurality of different variants. Note that said probes in step (b) do not only limit to probes that specifically hybridize to different variants of an exon of a gene. Please clarify.

8. Claim 1 is rejected as vague and indefinite in view of step (b). Since step (b) does not require said nucleic acids are RNAs, it is unclear why said levels of hybridization can indicate the nucleic acid expression levels of said plurality of different variants. Furthermore, since step (a) only requires one probe that specifically hybridizes to one of said different variants of an exon of a gene, it is unclear why the expression levels of said exon variants of a plurality of different genes in the genome of an organism in a cell sample derived from said organism can be analyzed. Please clarify.

9. Claim 265 is rejected as vague and indefinite because it is unclear that said perturbation is exposed what to a drug. . Please clarify.

10. Claim 284 is rejected as vague and indefinite in view of step (b). Since step (b) does not require measuring levels of hybridization between exon specific probes or/and variant junction probes and said RNAs or nucleic acids, and only requires measuring levels of hybridization

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between said probes and said RNAs or nucleic acids, said levels of hybridization can not indicate the nucleic acid expression levels of said plurality of different variants. Note that said probes in step (b) do not only limit to exon specific probes or/and variant junction probes. Please clarify.

11. Claim 284 is rejected as vague and indefinite in view of step (b). Since step (b) does not require said nucleic acids are RNAs, it is unclear why said levels of hybridization can indicate the nucleic acid expression levels of said plurality of different variants. Please clarify.

12. Claim 285 is rejected as vague and indefinite in view of step (b). Since step (b) does not require measuring levels of hybridization between variant junction probes and said RNAs or nucleic acids, and only requires measuring levels of hybridization between said probes and said RNAs or nucleic acids, said levels of hybridization can not indicate the nucleic acid expression levels of said plurality of different variants. Note that said probes in step (b) do not only limit to variant junction probes. Please clarify.

13. Claim 285 is rejected as vague and indefinite in view of the second "wherein" phrase of step (a). Since the first part of the second "wherein" phrase only requires one variant junction probe while the second part of the second "wherein" phrase requires two or more variant junction probes (ie., each of said variant junction probe), the first and second parts of the second "wherein" phrase do not correspond each other. Please clarify.

14. Claim 285 is rejected as vague and indefinite in view of step (b). Since step (b) does not require said nucleic acids are RNAs, it is unclear why said levels of hybridization can indicate the nucleic acid expression levels of said plurality of different variants. Please clarify.

### ***Conclusion***

15. No claim is allowed.

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16. Papers related to this application may be submitted to Group 1600 by facsimile transmission. Papers should be faxed to Group 1600 via the PTO Fax Center. The faxing of such papers must conform with the notices published in the Official Gazette, 1096 OG 30 (November 15, 1988), 1156 OG 61 (November 16, 1993), and 1157 OG 94 (December 28, 1993)(See 37 CAR § 1.6(d)). The CM Fax Center number is (571)273-8300.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank Lu, Ph.D., whose telephone number is (571)272-0746. The examiner can normally be reached on Monday-Friday from 9 A.M. to 5 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ram Shukla, can be reached on (571)272-0735.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to (571) 272-0547.

February 15, 2008

  
FRANK LU  
PRIMARY EXAMINER